SEQUENCE LISTING

<110> Venta, Patrick J.
Brewer, George J.
Vilma, Yuzbasiyan-Gurkan
Schall, William D.

<120> DNA ENCODING CANINE VON WILLEBRAND FACTOR AND METHODS
OF USE

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<150> 09/132,652
<151> 1998-08-11

<150> PCT/US99/18153
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Ser Met Tyr Ser Phe Ala Gly Asp Cys Ser Tyr Leu Leu Ala Gly Asp
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Cys Gln Glu His Ser Ile Ser Leu Ile Gly Gly Phe Gln Asn Asp Lys
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Arg Val Ser Leu Ser Val Tyr Leu Gly Glu Phe Phe Asp Ile His Leu
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Phe Val Asn Gly Thr Met Leu Gln Gly Thr Gln Ser Ile Ser Met Pro
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Tyr Ala Ser Asn Gly Leu Tyr Leu Glu Ala Glu Ala Gly Tyr Tyr Lys
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Glu Gly Thr Leu Thr Ser Asp Pro Tyr Asp Phe Ala Asn Ser Trp Ala
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Ser Val Cys Arg Pro Ala Cys Pro Ala Gly Met Glu Tyr Lys Glu Cys
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Val Ser Pro Cys Thr Arg Thr Cys Gln Ser Leu His Val Lys Glu Val
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Cys Gln Glu Gln Cys Val Asp Gly Cys Ser Cys Pro Glu Gly Gln Leu
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Thr Cys Ile Cys Arg Asn Ser Leu Trp Ile Cys Ser Asn Glu Glu Cys
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Pro Gly Glu Cys Leu Val Thr Gly Gln Ser His Phe Lys Ser Phe Asp
385   390   395   400

Asn Arg Tyr Phe Thr Phe Ser Gly Val Cys His Tyr Leu Leu Ala Gln
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Asp Cys Gln Asp His Thr Phe Ser Val Val Ile Glu Thr Val Gln Cys
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Asp Leu Gln Met Arg Ser Arg Val Arg Gly Arg Leu Leu Val Thr Leu

Asn Leu Gln Lys Gln His Arg Asp Pro Cys Ser Leu Asn Pro Arg Gln
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Glu Pro Cys His Arg Ala Val Gly Pro Gln Pro Tyr Val Gln Asn Cys
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Leu Tyr Asp Val Cys Ser Cys Ser Asp Gly Arg Asp Cys Leu Cys Ser
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Ala Val Ala Asn Tyr Ala Ala Ala Val Ala Arg Arg Gly Val His Ile
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Ala Trp Arg Glu Pro Gly Phe Cys Ala Leu Ser Cys Pro Gln Gly Gln
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Val Tyr Leu Gln Cys Gly Thr Pro Cys Asn Met Thr Cys Leu Ser Leu
        660   665   670

Ser Tyr Pro Glu Glu Asp Cys Asn Glu Val Cys Leu Glu Ser Cys Phe
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Ser Pro Pro Gly Leu Tyr Leu Asp Glu Arg Gly Asp Cys Val Pro Lys
        690   695   700

Ala Gln Cys Pro Cys Tyr Tyr Asp Gly Glu Ile Phe Gln Pro Glu Asp
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Ile Phe Ser Asp His His Thr Met Cys Tyr Cys Glu Asp Gly Phe Met
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His Cys Thr Thr Ser Gly Gly Leu Gly Ser Leu Leu Pro Asn Pro Val
        740   745   750

Leu Ser Ser Leu Arg Tyr His Arg Ser Lys Arg Ser Leu Ser Tyr Arg

Ile Ile Met Val Cys Leu Val Tyr Ile Ala Arg Ala Ile Arg Ala Ala
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Gly Leu Glu Tyr Ala Lys Thr Cys Gln Asn Tyr Asp Leu Gln Cys Met
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Ala Thr Tyr Ser Ala Ile Gly Met Ala His Tyr Leu Thr Phe Asp Gly

Leu Lys Tyr Leu Phe Pro Gly Glu Cys Gln Tyr Val Leu Val Gln Asp
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Tyr Cys Gly Ser Asn Pro Gly Thr Leu Arg Ile Leu Val Gly Asn Glu
900 905 910

Gly Cys Ser Tyr Pro Ser Val Lys Cys Lys Lys Arg Val Thr Ile Leu
915 920 925

Val Glu Gly Gly Glu Ile Glu Leu Phe Asp Gly Glu Val Asn Val Lys
930 935 940

Lys Pro Met Lys Asp Glu Thr His Phe Glu Val Val Glu Ser Gly Gln
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Tyr Val Ile Leu Leu Leu Gly Lys Ala Leu Ser Val Val Trp Asp His
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Arg Leu Ser Ile Ser Val Thr Leu Lys Arg Thr Tyr Gln Glu Gln Val
980 985 990

Cys Gly Leu Cys Gly Asn Phe Asp Gly Ile Gln Asn Asn Asp Phe Thr
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Trp Lys Val Asn Pro Gln Cys Ala Asp Thr Lys Lys Val Pro Leu Asp
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Ser Ser Pro Ala Val Cys His Asn Asn Ile Met Lys Gln Thr Met Val
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Ala Leu Val Asp Ile Glu Ile Phe Leu Arg Ile Tyr Ile Tyr Arg Thr

Cys Ser Cys Glu Ser Ile Gly Asp Cys Thr Cys Phe Cys Asp Thr Ile
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Lys Val Glu Gly Cys His Ala His Cys Pro Pro Gly Lys Ile Leu Asp
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Glu Leu Leu Gln Thr Cys Ile Asp Pro Glu Asp Cys Pro Val Lys Glu
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Asp Gly Pro Ile Gly Ser Thr Thr Ser Tyr Val Glu Asp Thr Ser Glu
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Pro Pro Leu His Asp Phe His Cys Ser Arg Leu Leu Asp Leu Val Phe
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Lys Val Phe Val Val Gly Met Met Glu His Leu His Ile Ser Gln Lys
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Ile Glu Leu Lys Asp Arg Lys Arg Pro Ser Glu Leu Arg Arg Ile Thr
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Leu Ala Arg Asn Leu Val Arg Tyr Val Gln Gly Leu Lys Lys Lys Lys
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Val Ile Val Ile Pro Val Gly Ile Gly Pro His Ala Ser Leu Lys Gln
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Val Thr Val Leu Gln Tyr Ser Tyr Met Val Thr Val Glu Tyr Thr Phe
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Pro Asn Leu Val Tyr Met Val Thr Gly Asn Pro Ala Ser Asp Glu Ile
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His Ala Asn Val Gln Glu Leu Glu Lys Ile Gly Trp Pro Asn Ala Pro
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Ile Leu Ile His Asp Phe Glu Met Leu Pro Arg Glu Ala Pro Asp Leu
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Ser Lys Ala Val Val Ile Leu Val Thr Asp Val Ser Val Asp Ser Val
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Leu Pro Thr Val Ala Thr Leu Gly Asn Ser Phe Phe His Lys Leu Cys
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Ser Gly Phe Asp Arg Val Cys Val Asp Glu Asp Gly Asn Glu Lys Arg
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Pro Gly Asp Val Trp Thr Leu Pro Asp Gln Cys His Thr Val Thr Cys
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Leu Pro Asp Gly Gln Thr Leu Leu Lys Ser His Arg Val Asn Cys Asp
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Arg Gly Pro Arg Pro Ser Cys Pro Asn Gly Gln Pro Pro Leu Arg Val
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Glu Glu Thr Cys Gly Cys Arg Trp Thr Cys Pro Cys Val Cys Met Gly
1940   1945   1950

Ser Ser Thr Arg His Ile Val Thr Phe Asp Gly Gln Asn Phe Lys Leu
1955   1960   1965

Thr Gly Ser Cys Ser Tyr Val Leu Phe Gln Asn Lys Glu Gln Asp Leu

His Val Ile Leu His Asn Gly Ala Tyr Ser Ile Gly Ala Lys Gly Thr

Cys Met Lys Ser Ile Glu Val Lys His Asp Gly Leu Ser Val Glu Leu
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His Ser Asp Met Glu Met Thr Val Asn Gly Arg Leu Val Ser Ile Pro

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Glu Gln Cys Pro Val Ser Glu Phe Phe His Cys Gln Val Leu Leu Ser
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Glu Leu Phe Ala Glu Cys His Lys Val Leu Ala Pro Ala Thr Phe Tyr
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Ala Met Cys Gln Pro Asp Ser Cys His Pro Lys Lys Val Cys Glu Ala
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Ile Ala Leu Tyr Ala His Leu Cys Arg Thr Lys Gly Val Cys Val Asp
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Lys Thr Gln Cys Tyr Asp Glu Tyr Thr Lys Ala Cys Asn Tyr Val Asn
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Glu Pro Glu Cys Lys Asp Ile Ile Ala Lys Leu Gln Arg Val Lys Val
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Gly Asp Cys Lys Ser Glu Glu Glu Val Asp Ile His Tyr Cys Glu Gly
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Lys Cys Ala Ser Lys Ala Val Tyr Ser Ile His Met Glu Asp Val Gln
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Asp Gln Cys Ser Cys Cys Ser Pro Thr Gln Thr Glu Pro Met Gln Val
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